Standardized Regulatory Impact Assessment

CalRecycle – Compostable Materials and Transfer/Processing Regulations

I. STATEMENT OF PURPOSE

A. Statement of the Need for the Proposed Major Regulation

The central purpose of the proposed regulations is to more effectively regulate solid waste facilities that handle compostable materials to protect public health, safety, and the environment. The proposed regulations modify the existing Compostable Material Handling Operations and Facilities Regulatory Requirements by: clarifying several feedstock definitions and the types of operations and facilities that can accept these materials; revising the maximum concentrations of metals allowed in compost to reflect changes adopted by US EPA; providing Enforcement Agencies with discretion to authorize temporary storage of additional material; revising Enforcement Agency inspection frequency language to ensure consistency throughout Title 14; providing operators and Enforcement Agencies with a mechanism to address chronic odor complaints and identify sources of odor; establishing criteria for safe land application of compostable material; requiring compost products to meet a 0.1% physical contaminant limit by weight; and clarifying small-scale composting requirements at sites, such as community gardens and schools.

The proposed regulations provide a standardized regulatory framework for in-vessel digestion activities. Currently, in-vessel digestion activities are subject to either existing Transfer/Processing Operations and Facilities Regulatory Requirements or Compostable Material Handling Operations and Facilities Regulatory Requirements, depending on the nature of the feedstock and how it is handled. The proposed regulations combine transfer/processing and compostable material handling requirements into a stand-alone set of in-vessel digestion regulations, which will have marginal impacts on in-vessel digestion activities compared to existing regulations.

The proposed regulations also clarify permitted maximum tonnage on the solid waste facility permit application.

II. METHODOLOGY

A. Economic Impact Method and Approach

The Department used a Regional Economic Models, Inc. (REMI) model to estimate the economic impacts of the proposed regulations. The REMI model is an analytical tool which can model a regional economy and analyze year-by-year impacts and total impacts on a macro scale. The current regulations (baseline) were compared to the proposed regulations, and economic impacts on businesses complying with the proposed regulations were estimated using the REMI model.

The REMI PI+ model employed for this analysis was “Software Build 1.5.2” (Build 3283, 6/4/2013). It is a one-region, 160-sector model, which was modified using the California-specific data for population, demographics and employment (as specified by the Department of Finance).

B. Specific Categories of Individuals and Business Enterprises Affected

An estimated 363 businesses would be impacted:

94 - Agricultural Material Compost Operations
1 - Biosolids Composting Operation at Publicly Owned Treatment Works
18 - Research Composting Operations
59 - Green Material Composting Operations
26 - Green Material Composting Facilities
30 - Composting Facilities
55 - Chipping and Grinding Operations
20 - Chipping and Grinding Facilities
30 - In-vessel Digestion Operations
30 - In-vessel Digestion Facilities

The North American Industry Classifications System (NAICS) sectors that may be impacted include:

Sector	NAICS	List
Agriculture, Forestry, Fishing and Hunting	11	111; 112; 113; 114; 115
Utilities	22	22132
Construction	23	23661; 23621; 23731
Manufacturing	31-33	311; 3121; 32111; 32121; 32211; 32212; 32213; 32221; 32222; 32223; 325314
Professional, Scientific, and Technical Services	54	54162
Administrative and Support and Waste Management and Remediation Services	56	562; 562111; 562920

C. Inputs into the Assessment of the Economic Impact

Appendices B-1 through B-4 present the calculations and assumptions to estimate the costs of the proposed regulations.

Appendix B-1 presents the calculations and assumptions to estimate the cost to privately-owned or operated Compostable Material Handling Operations and Facilities. Appendix B-3 presents the calculations and assumptions to estimate the costs to publicly owned and operated Compostable Material Handling Operations and Facilities, and to public agencies associated with the revised Compostable Material Handling Operations and Facilities Regulatory Requirements. These proposed regulations are revisions to existing Compostable Material Handling Operations and Facilities Regulatory Requirements (California Code of Regulations, Title 14, Division 7, Chapter 3.1). The Department's estimate of the costs to operations and facilities subject to the compostable material handling regulations is based on actual numbers of existing operations and facilities and knowledge of the throughput tonnage.

Appendix B-2 presents the calculations and assumptions to estimate the cost to privately owned or operated In-vessel Digestion Operations and Facilities. Appendix B-4 presents the calculations and assumptions to estimate the costs to publicly owned and operated In-vessel Digestion Operations and Facilities, and to public agencies associated with the proposed In-vessel Digestion Operations and Facilities Regulatory Requirements. Currently, these types of solid waste operations and facilities are subject to either the Transfer/Processing Operations and Facilities Regulatory Requirements (California Code of Regulations, Title 14, Division 7,

Chapter 3, Articles 6.0 – 6.35) or the Compostable Material Handling Operations and Facilities Regulatory Requirements (California Code of Regulations, Title 14, Division 7, Chapter 3.1). These proposed in-vessel digestion regulations provide a single, standalone set of regulations for this type of solid waste activity. The Department's estimate of the costs to operations and facilities subject to the in-vessel digestion regulations includes assumptions about the number of projected operations and facilities, and accounts for differential impacts related to whether the operations and facilities would have been regulated under the Compostable Materials regulations or the Transfer/Processing regulations.

Four scenarios were analyzed (Low Cost – Compostable Materials; Low Cost – In-Vessel Digestion; High Cost – Compostable Materials; High Cost – In-Vessel Digestion) under the assumption of first year of implementation as 2015. If implementation is delayed a year, or two, then the costs will be similarly delayed. The regulations contain provisions that allow pre-existing operations and facilities to operate in accordance with an existing regulatory authorization for up to 2 years before the operation or facility would be subject to the In-vessel Digestion portion of these regulations. Therefore, the Department estimates the regulations as a whole will be fully implemented at the end of year two (from operative date of regulations). For the purposes of this assessment, the Department is identifying costs for 2105 (first year of implementation) and 2018 (12 months after full implementation). Forecasts show increasing costs for the subsequent years, at a rate of increase of 1.0% to 1.4% annually, depending on the scenario. This increase is primarily due to the annual increase due to population, and in assumed increases in collection efficiencies. The full presentations for all years assessed, for all scenarios, are available upon request. It is important to note that these changes are from a baseline of growth in the industry for each year, as specified in the assumptions. This regulation does not create a new industry, and hence the jobs that will occur within this new and expanding industry sector are not counted in this assessment. Only the ancillary jobs, related to regulatory compliance and enforcement, are counted in this assessment.

The complete assessment of all economic impacts, including costs by sector, and changes in employment, involved a two-step assessment. The first step was to analyze the direct costs of all compliance and regulatory activities that result from the regulation. Once these were obtained, the second step was to insert the resulting annualized cost estimates for relevant employment sectors into the Regional Economic Modeling (REMI) software. This software allows estimation of indirect and induced effects of the proposed regulation, in each of the four scenarios. The results are displayed in separate tables, as the variables are quite different for each type of assessment.

Four key cost components that comprise the annual total cost were selected:

General Cost includes all costs not specifically detailed in the other three categories. This is principally labor necessary to complete the sampling, removal of physical contaminants and recordkeeping requirements as specified in the regulation, under the specific assumptions of the individual scenario.

Machinery/Equipment Cost includes costs of purchased equipment only. The General Cost category does include some embedded machinery costs, where it was expected that work would be hired out to contractors, and the machinery cost was considered as part of the total cost of the contract. The direct expenditure for machinery is less than 10% of this listed amount, and was inserted into the REMI model in the year that expenditure was expected to occur (in the high cost scenarios).

Laboratory Cost includes only the cost of the laboratory in analyzing the samples. Collection of samples, and oversight of the sampling process, is contained in General Cost.

Regulatory Agency Cost includes the cost of oversight and enforcement of the regulation, for individual State agencies. The detailed spreadsheets contain cost estimates for each separate state agency, including Regional Water Quality Board costs.

The direct costs were separated into these categories to facilitate the modeling within REMI, which determines the related indirect costs. Within that model, different economic multipliers are contained that are specific to these selected categories. For example, the indirect jobs related to manufacturing of special equipment are attributed in much higher portion to states that have stronger manufacturing sectors, and these new jobs are assigned outside the State, and included in the job total in the first line of each scenario in Table 3. Estimated changes in California-specific jobs are shown separately.

Table 1: Estimated Direct Cost of Compostable Materials and In-vessel Digestion Regulations, Four Scenarios: Low and High Cost Range

LOW COST SCENARIO		Direct Costs (per year) – Compostable Materials (Public & Private)	
Year		2015	2018
General Cost		$707,505	$716,121
Machinery/Equipment Cost		$0	$0
Laboratory Cost		$90,082	$95,738
Regulatory Agency Cost		$0	$34,548
Total Cost		$797,587	$846,407

LOW COST SCENARIO		Direct Costs (per year) – In-Vessel Digestion (Public & Private)	
Year		2015	2018
General Cost		$4,637	$172,209
Machinery/Equipment Cost		$2,743	$557,235
Laboratory Cost		$0	$1,967
Regulatory Agency Cost		$0	$43,152
Total Cost		$7,380	$774,563

HIGH COST SCENARIO		Direct Costs (per year) – Compostable Materials (Public & Private)	
Year		2015	2018
General Cost		$33,480,169	$35,494,875
Machinery/Equipment Cost		$16,193,010	$17,184,152
Laboratory Cost		$1,089,174	$1,155,840
Regulatory Agency Cost		$0	$34,548
Total Cost		$50,762,353	$53,869,415

HIGH COST SCENARIO		Direct Costs (per year) – In-Vessel Digestion (Public & Private)	
Year		2015	2018
General Cost		$5,253	$5,829,747
Machinery/Equipment Cost		$3,393	$3,802,468
Laboratory Cost		$0	$3,980
Regulatory Agency Cost		$0	$43,152
Total Cost		$8,646	$9,679,347

The range between the Low Cost and High Cost is largely due to the estimated costs associated with the proposed 0.1% physical contaminants limit. Based on stakeholder input, the Department estimates a sizable range in the cost incurred to comply with this proposed standard because some operations and facilities may already be meeting the standard and will incur zero cost, whereas others, depending on the percent contamination of in feedstock, will incur higher costs associated with additional labor, equipment operation and maintenance, education, etc. That is, if incoming feedstock is low in contaminants, costs can be avoided or significantly reduced. The Department estimates actual costs to will be somewhere in between the Low Cost and High cost scenarios. The median cost would be around $31 Million per year.

The direct costs in Table 1 include summed costs for a wide range of composter types. Some of these facilities will incur costs that can be allocated to specific categories, such as purchase of new equipment and purchase of laboratory services. For other facility types, there may be some additional equipment used, but these expenditures are indirect, inasmuch as the equipment will be included under a contract for services. Equipment not specifically identified, which may be used at facilities as a result of compliance with the regulation, is included under the "General Cost" category.

In the direct impact analysis, the costs were all based on 2012 expenditures, but the REMI model that was used for this analysis is based on 2005 dollar values. Thus the output values from the direct analysis are converted to the REMI model values. (The jobs estimate is not modified.) All of the variables in the direct cost analysis need to be converted to the units used by the REMI model, either millions or billions for the values, and all jobs estimates in thousands. These conversions were also made. The six specific REMI model policy variables selected for the model are shown in the Table 2 below.

Table 2: REMI Model Policy Variable Selected

	HIGH SCENARIOS		**AS TRANS/PROC/OP**		
2005 $m	B 1-4, AS TRANS/PROC/OP	Production Cost	Waste management & remediation services	COSPOL2	x7930
2005 $m	MACHINERY/EQPT.	Exogenous Final Demand	Waste management & remediation services	DEMPOL	X6530
2005 $m	MANUFACTURING PURCHASE	Capital Cost	Waste management remediation services	COSCAP2	x10130
2005 $m	LAB COSTS	Exogenous Final Demand	Management, scientific, & technical consulting svcs.	DEMPOL	x6520
2005 $m	REGULATORY COST	State Govt. Spending	Total	FDPVST	63

D. Outputs from the Assessment of the Economic Impact

The forecasted indirect costs of the regulation are displayed in Table 3. The forecasted costs for the four categories were input for each of the four scenarios that resulted in four separate REMI outputs. These results are shown for the two selected years.

Table 3: Estimated Indirect Cost of Compostable Materials and In-vessel Digestion Regulations, Four Scenarios: Low and High Cost Range

LOW COST SCENARIO	Indirect Costs (per year) – Compostable Materials		
Year	Measure	2015	2018
Total Employment	Jobs	0	-2
Laboratory Services (Mgmt. Sci & Tech Consult.)	Jobs	1	1
Waste Mgmt. & Remediation Svcs.	Jobs	0	2
Gross Domestic Product	$ Mill.	$0.0	$0.0
Output	$ Mill.	$0.0	$0.0
Value Added	$ Mill.	$0.0	$0.0
Relative Composite Input Costs	Proportion	0.0%	0.0%
Relative Delivered Price	Proportion	0.0%	0.0%
Relative Cost of Production	Proportion	0.0%	0.0%

LOW COST SCENARIO	Indirect Costs (per year) – In-Vessel Digestion		
Year	Measure	2015	2018
Total Employment	Jobs	0	-2
Laboratory Services (Mgmt. Sci & Tech Consult.)	Jobs	1	1
Waste Mgmt. & Remediation Svcs.	Jobs	0	2
Gross Domestic Product	$ Mill.	$0.0	$0.0
Output	$ Mill.	$0.0	-$1.0
Value Added	$ Mill.	$0.0	$0.0
Relative Composite Input Costs	Proportion	0.0%	0.0%
Relative Delivered Price	Proportion	0.0%	0.0%
Relative Cost of Production	Proportion	0.0%	0.0%

HIGH COST SCENARIO	Indirect Costs (per year) – Compostable Materials		
Year	Measure	2015	2018
Total Employment	Jobs	1	-4
Laboratory Services (Mgmt. Sci & Tech Consult.)	Jobs	8	7
Waste Mgmt. & Remediation Svcs.	Jobs	56	43
Gross Domestic Product	$ Mill.	$4.0	-$15.0
Output	$ Mill.	$2.0	-$5.0
Value Added	$ Mill.	$0.0	$0.0
Relative Composite Input Costs	Proportion	0.1%	0.1%
Relative Delivered Price	Proportion	0.3%	0.3%
Relative Cost of Production	Proportion	0.3%	0.3%

HIGH COST SCENARIO	Indirect Costs (per year) – In-Vessel Digestion		
Year	Measure	2015	2018
Total Employment	Jobs	4	4
Laboratory Services (Mgmt. Sci & Tech Consult.)	Jobs	0	0
Waste Mgmt. & Remediation Svcs.	Jobs	0	14
Gross Domestic Product	$ Mill.	$0.0	$0.0
Output	$ Mill.	$0.0	$1.0
Value Added	$ Mill.	$0.0	$0.0
Relative Composite Input Costs	Proportion	0.0%	0.0%
Relative Delivered Price	Proportion	0.0%	0.1%
Relative Cost of Production	Proportion	0.0%	0.1%

E. Agency's Interpretation of the Results of the Assessment of the Economic Impact

From the detailed REMI output, nine key cost components that comprise the annual total cost were selected, and these are displayed in Table 3 as changes occurring in three separate categories, within three groups: Employment, Output, and Relative Cost. It is important to note that these changes are from a baseline of growth in the compost industry for each year, as specified in the assumptions. This regulation does not create a new industry, and hence the jobs that will occur within this new and expanding industry sector are not counted in this assessment. In addition to the overall changes of the number of jobs in the U.S. economy, the (almost entirely California-based) ancillary jobs, related to regulatory compliance and enforcement, are counted in this assessment.

Employment changes resulting from indirect and induced impacts of the regulation are forecasted for three groups: Total Employment, Laboratory Services (LS), and Waste Management and Remediation Services (WMRS). Under the Low Cost scenarios, the total California net job changes, for each representative year, are shown in the first line. The second and third lines show the annual job changes for LS industry sector, and the WMRS Sectors.

In 2018, it is estimated that under both of the Low Cost Scenarios there will be one additional job created in Laboratory Services, and two additional jobs in the WMRS sector. However, two jobs will be lost somewhere in the economy, as the regulation results in a net increase of one job, not the three jobs created in the specific industry sectors.

Under the High Cost scenarios, there will be seven additional jobs in the LS sector and 57 additional jobs in the WMRS sector. Four jobs will be gained and four jobs will be lost somewhere in the economy.

Gross Domestic Product changes resulting from indirect and induced impacts of the regulation are forecasted, as well related Economic Output and Value Added to the National economy. As the REMI model displays inputs and outputs in these categories in the billions of dollars, the model output for these categories is rounded to the nearest million. The values shown in Table 3 are in 2005 dollars, to be consistent with the REMI model output values. These values should be multiplied by 1.175 to be directly comparable to the values shown in Table 1.

For the Low Cost scenarios, this GDP changes and Output changes are on the same order of magnitude as the estimates made for Direct Costs, shown in Table 1.

The GDP reduction under the High Cost Scenarios for the year 2018 is estimated at $15 million for the Compost Materials, and at $0 for the In-Vessel Digestion.

The values determined by the model for the changes in GDP, Economic Output, and Value Added are roughly what would be expected from the imposition of a cost upon a specific industry or sector of the economy. As stated above, these costs – in terms of dollars and jobs - are completely separate from the economic value and jobs created by the expanding California composting industry.

Relative Composite Costs and Prices are the changes, in percent from baseline, for the three categories: Relative Composite Input Costs, Relative Delivered Price, and Relative Cost of Production. These three values are all specific to the WMRS industry sector, and measure the changes to the production costs for this industry. The costs and prices are all positive values, showing increases.

In the Low Cost scenarios, no measurable changes are observed in the model.

In the High Cost scenarios, the changes in Relative Composite Input Costs remains measurably unchanged, across all years. The Relative Delivered Price increases in the early years of the In-vessel Digestion forecast by 0.1%, and in the later years by 0.2%. For Compostable Materials forecast, the Relative Cost of Production under the High Cost scenario increases at 0.3% annually.

Not shown in the detailed REMI output in Table 3 are additional quantitative impacts that occur outside the specific sectors mentioned above (i.e., the three groups: Employment, Output, and Relative Cost). It is important to note that these changes are from a baseline of growth in the compost industry for each year, as specified in the assumptions. Not included in this table are indirect and induced effects related to direct expenditures on machinery, in the year that these impacts occurred. The REMI model amortizes these expenditures over a period of years, and even the combined impact of multiple expenditures over a period of years is so small that it does not appear in the output of the model results.

III. CRITERIA

A. Creation or Elimination of Jobs within the State

The proposed regulatory action may create between two and 57 new jobs at compostable material handling and in-vessel digestion facilities due to hiring additional laborers to manually remove physical contaminants or operate equipment to remove physical contaminants, designing and maintaining roads, providing adequate lighting, and providing and maintaining visual screening, and up to 7 additional jobs at laboratories that analyze percent contamination. Compostable material handling and in-vessel digestion facilities may also need to purchase additional equipment to remove physical contaminants which may create new equipment manufacturing and/or maintenance/repair jobs in California.

B. Creation of New Businesses or the Elimination of Existing Businesses within the State

Based on this assessment, the proposed regulations would not affect the creation or elimination of businesses within California. Currently, these types of solid waste operations and facilities are subject to either the Transfer/Processing Operations and Facilities Regulatory Requirements (California Code of Regulations, Title 14, Division 7, Chapter 3, Articles 6.0 – 6.35) or the Compostable Material Handling Operations and Facilities Regulatory Requirements (California Code of Regulations, Title 14, Division 7, Chapter 3.1).

C. Competitive Advantages or Disadvantages for Businesses Currently Doing Business Within the State

The proposed regulations revisions would not impact the ability of California businesses to compete with businesses in other states to produce goods or services within California. The proposed regulations revisions are intended to create more equitable compostable material handling and in-vessel digestion business competition within California.

D. Increase or Decrease of Investment in the State

The results of this assessment do not indicate whether the proposed regulations would either increase or decrease investment in the State.

E. Incentives for Innovation in Products, Materials, or Processes

One proposed change in these regulations is a standard for compostable material applied to land, and compost produced at a regulated operation or facility, to meet a 0.1% physical contaminant limit. The Department assumes operators will incur costs associated with removing contaminants from feedstock or product to meet this standard. Initially, operators may employ labor and/or utilize available equipment (e.g., screens) to remove contaminants. Moving forward, the Department anticipates the standard may stimulate the development of innovative equipment or physical processes to more efficiently and cost-effectively remove contaminants.

F. Benefits of the Regulations

The principal benefit of the proposed regulations is protecting public health, safety and the environment. Requiring compost products to meet a 0.1% physical contaminant limit will reduce litter and minimize the amount of plastic entering surface water and the ocean while creating new jobs and increasing the market value of compost. Establishing criteria for safe land application of compostable material will reduce litter and minimize the amount of plastic entering surface water and the ocean and improve food safety and animal health by reducing toxic metals, disease-causing organisms, physical contaminants, and invasive/noxious species in compostable material. Other benefits of the proposed regulations include minimizing odors at compostable material handling and in-vessel digestion facilities; decreasing greenhouse gases, air pollution, and long-distance transportation of organic material by facilitating small-scale composting; providing clarity to the regulated community and regulators. Finally, the regulations will ensure safe operations and facilities to handle organic material diverted as the result of California's goal to source-reduce, recycle, or compost 75% of the solid waste generated in the State by 2020.

The new, "stand-alone" In-vessel digestion portion of the proposed regulations will establish a clear regulatory framework for the digestion of organic material. Digesting this material will decrease greenhouse gas generation and increase production of biofuels/bioenergy.

IV. CONCLUSIONS

A. Description of the Costs and All Benefits Due to the Proposed Regulatory Change

Costs

The Department estimates the economic impact of this regulation (including the fiscal impact) is over $50 million.

LOW COST SCENARIO			
Year		2015	2018
Compostable Materials		$797,587	$846,407
In-Vessel Digestion		$7,380	$774,563
Total		$804,967	$1,620,970

HIGH COST SCENARIO			
Year		2015	2018
Compostable Materials		$50,762,353	$53,869,415
In-Vessel Digestion		$8,646	$9,679,347
Total		$50,770,999	$63,548,762

Benefits

The principal benefit of the proposed regulations is protecting public health, safety and the environment. Requiring compost products to meet a 0.1% physical contaminant limit will reduce litter and minimize the amount of plastic entering surface water and the ocean while creating new jobs and increasing the market value of compost. Establishing criteria for safe land application of compostable material will reduce litter and minimize the amount of plastic entering surface water and the ocean and improve food safety and animal health by reducing toxic metals, disease-causing organisms, physical contaminants, and invasive/noxious species in compostable material. Other benefits of the proposed regulations include minimizing odors at compostable material handling and in-vessel digestion facilities; decreasing greenhouse gases, air pollution, and long-distance transportation of organic material by facilitating small-scale composting; providing clarity to the regulated community and regulators. Finally, the regulations will ensure safe operations and facilities to handle organic material diverted as the result of California's goal to source-reduce, recycle, or compost 75% of the solid waste generated in the State by 2020.

The new, "stand-alone" In-vessel digestion portion of the proposed regulations will establish a clear regulatory framework for the digestion of organic material. Digesting this material will decrease greenhouse gas generation and increase production of biofuels/bioenergy.

B. Description of the Costs and Benefits of Alternatives Considered, and Reason(s) for Rejecting Alternative(s)

Alternative 1: No action.

Cost: There would be no cost associated with this alternative.

Benefits: This alternative would not achieve any of the benefits listed in the above section - *Description of the Costs and All Benefits Due to the Proposed Regulatory Change*.

Reason for Rejecting: The no action alternative would not address the stated need for the regulations, namely protecting public health, safety, and the environment.

Alternative 2: Increase the physical contaminant level of compost and land applied material to a higher limit than 0.1%.

Cost: While increasing the allowable physical contaminant level may seem like it would save in both time and labor, staff does not estimate a significant cost savings. Based on stakeholder input, there will be certain amount of baseline level of costs (e.g., equipment capital costs; basic labor costs) regardless of the physical contaminant level set. Therefore, staff does not estimate a direct correlation between increasing the physical contaminant level and a reduction in costs.

Benefits: Increasing the allowable physical contaminant level would increase revenues for Compostable Material Handling Facilities and Operations, as more product could be sold in segments of the agriculture and erosion control markets where higher physical contaminants levels are acceptable. However, increasing the allowable physical contaminant level would negatively impact public health, safety, and the environment (see Reason for Rejecting below).

Reason for Rejecting: Increasing the physical contaminant level would not address the stated need for the regulations, namely protecting public health, safety, and the environment. Increasing the physical contaminant level could adversely impact food safety and animal health by increasing toxic metals, disease-causing organisms, physical contaminants, and invasive/noxious species in compost and compostable material; increase the amount of plastic entering surface water and the ocean; and increase litter in areas where compost and compostable material is applied.

C. Impact on General Fund and Special Funds

Department staff has determined that the proposed regulation does not impose a mandate on local agencies or school districts.

Department staff has further determined that the proposed regulation does not impact: 1) any costs to local government, which must be reimbursed pursuant to Section 6 of Article XIII B of the California Constitution and Part 7 (commencing with Section 17500) of Division 4 of the Government Code; 2); any savings to local government; 3) any savings or other impacts such as revenue changes to state agencies; and 4) any additional federal funding or reduction in federal funding to the state.

Costs to local government, which are not reimbursable under Section 6 of Article XIII B of the California Constitution but which will necessarily be incurred in reasonable compliance with the regulations, and which could result in a revenue change(s), are outlined in Appendix B-2 and B-4.

Costs to state agencies that will be incurred in reasonable compliance, administration, implementation, and/or enforcement by the Department and other state agencies are outlined in Appendix B-2 and B-4.

MAJOR REGULATIONS
STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

[From this point forward in this draft SRIA the headings are the same as those contained on Department of Finance form DF-131(NEW 11/13). For the final SRIA this information will be transferred to form DF-131.]

Statement of the Need for the Proposed Major Regulation

The central purpose of the proposed regulations is to more effectively regulate solid waste facilities that handle compostable materials to protect public health, safety, and the environment. The proposed regulations modify the existing Compostable Material Handling Operations and Facilities Regulatory Requirements by: clarifying several feedstock definitions and the types of operations and facilities that can accept these materials; revising the maximum concentrations of metals allowed in compost to reflect changes adopted by US EPA; providing Enforcement Agencies with discretion to authorize temporary storage of additional material; revising Enforcement Agency inspection frequency language to ensure consistency throughout Title 14; providing operators and Enforcement Agencies with a mechanism to address chronic odor complaints and identify sources of odor; establishing criteria for safe land application of compostable material; requiring compost products to meet a 0.1% physical contaminant limit by weight; and clarifying small-scale composting requirements at sites, such as community gardens and schools.

The proposed regulations provide a standardized regulatory framework for in-vessel digestion activities. Currently, in-vessel digestion activities are subject to either existing Transfer/Processing Operations and Facilities Regulatory Requirements or Compostable Material Handling Operations and Facilities Regulatory Requirements, depending on the nature of the feedstock and how it is handled. The proposed regulations combine transfer/processing and compostable material handling requirements into a stand-alone set of in-vessel digestion regulations, which will have marginal impacts on in-vessel digestion activities compared to existing regulations.

The proposed regulations also clarify permitted maximum tonnage on the solid waste facility permit application.

Categories of Individuals and Business Enterprises Impacted, and Amount of the Economic Impact on Each

See Appendices B1 – B4

Description of the Costs and All Benefits Due to the Proposed Regulatory Change

Costs

The Department estimates the economic impact of this regulation (including the fiscal impact) is over $50 million.

LOW COST SCENARIO			
Year		2015	2018
Compostable Materials		$797,587	$846,407
In-Vessel Digestion		$7,380	$774,563

Total		$804,967	$1,620,970

HIGH COST SCENARIO			
Year		2015	2018
Compostable Materials		$50,762,353	$53,869,415
In-Vessel Digestion		$8,646	$9,679,347
Total		$50,770,999	$63,548,762

Benefits

The principal benefit of the proposed regulations is protecting public health, safety and the environment. Requiring compost products to meet a 0.1% physical contaminant limit will reduce litter and minimize the amount of plastic entering surface water and the ocean while creating new jobs and increasing the market value of compost. Establishing criteria for safe land application of compostable material will reduce litter and minimize the amount of plastic entering surface water and the ocean and improve food safety and animal health by reducing toxic metals, disease-causing organisms, physical contaminants, and invasive/noxious species in compostable material. Other benefits of the proposed regulations include minimizing odors at compostable material handling and in-vessel digestion facilities; decreasing greenhouse gases, air pollution, and long-distance transportation of organic material by facilitating small-scale composting; providing clarity to the regulated community and regulators. Finally, the regulations will ensure safe operations and facilities to handle organic material diverted as the result of California's goal to source-reduce, recycle, or compost 75% of the solid waste generated in the State by 2020.

The new, "stand-alone" In-vessel digestion portion of the proposed regulations will establish a clear regulatory framework for the digestion of organic material. Digesting this material will decrease greenhouse gas generation and increase production of biofuels/bioenergy.

Description of the 12-Month Period in Which the Agency Estimates the Economic Impact Will Exceed $50 Million

The Department assumes costs associated with changes to the Compostable Materials Handling Operations and Facilities will begin incurring in year one (after operative date).

The Department assumes the majority of the costs associated with the In-vessel Digestion Operations and Facilities Regulatory Requirements will begin incurring in year three (as a result of a proposed regulation that allows a pre-existing activity to continue to operate in accordance with its existing authorization for a period of two years).

Description of the Agency's Baseline

The Department's baseline is the Governor's Budget of 2014.

Description of the Costs and Benefits of Alternatives Considered, and Reason(s) for Rejecting Alternative(s)

Alternative 1: No action.

Cost: There would be no cost associated with this alternative.

Benefits: This alternative would not achieve any of the benefits listed in the above section - *Description of the Costs and All Benefits Due to the Proposed Regulatory Change*.

Reason for Rejecting: The no action alternative would not address the stated need for the regulations, namely protecting public health, safety, and the environment.

Alternative 2: Increase the physical contaminant level of compost and land applied material to a higher limit than 0.1%.

Cost: While increasing the allowable physical contaminant level may seem like it would save in both time and labor, staff does not estimate a significant cost savings. Based on stakeholder input, there will be certain amount of baseline level of costs (e.g., equipment capital costs; basic labor costs) regardless of the physical contaminant level set. Therefore, staff does not estimate a direct correlation between increasing the physical contaminant level and a reduction in costs.

Benefits: Increasing the allowable physical contaminant level would increase revenues for Compostable Material Handling Facilities and Operations, as more product could be sold in segments of the market where higher physical contaminants levels are acceptable. However, increasing the allowable physical contaminant level would negatively impact public health, safety, and the environment (see Reason for Rejecting below).

Reason for Rejecting: Increasing the physical contaminant level would not address the stated need for the regulations, namely protecting public health, safety, and the environment. Increasing the physical contaminant level could adversely impact food safety and animal health by increasing toxic metals, disease-causing organisms, physical contaminants, and invasive/noxious species in compost and compostable material; increase the amount of plastic entering surface water and the ocean; and increase litter in areas where compost and compostable material is applied.

Description of the Methods by Which the Agency Sought Public Input

Staff conducted 16 statewide workshops and meetings between October 2011 and May 2013 to solicit comments from affected stakeholders regarding the proposed regulations. Staff received numerous comments on various aspects of the proposed rulemaking ranging from supportive to suggested revisions. Staff considered all suggested revisions and made changes to draft proposed regulations as deemed appropriate for the protection of public health, safety, and the environment.

A listing of the notices to public workshops is available at:
http://www.calrecycle.ca.gov/Laws/Rulemaking/Compost/default.htm

A summary of the comments received are available at:
http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=696&aiid=656

Economic Impact Method and Approach

The Department used a Regional Economic Models, Inc. (REMI) model to estimate the economic impacts of the proposed regulations. The REMI model is an analytical tool which can model a regional economy and analyze year-by-year impacts and total impacts on a macro scale. The current regulations (baseline) were compared to the proposed regulations, and economic impacts on businesses complying with the proposed regulations were estimated using the REMI model.

The REMI PI+ model employed for this analysis was “Software Build 1.5.2” (Build 3283, 6/4/2013). It is a one-region, 160-sector model, which was modified using the California-specific data for population, demographics and employment (as specified by the Department of Finance).